

REMARKS

After the foregoing Amendment, claims 34-40 and 42-57 are currently pending in the application.

Claims 21-33 and 41 have been cancelled. Claims 34-40, 42, 53-54 are withdrawn from consideration. Applicants note that claims 53-54 depend from claims which are being currently examined and should therefore be examined as well. New claims 43-57 have been added to replace the cancelled claims and are supported by the claims as filed and by paragraphs [0056,0077-0081,0088, and 0139-0140] of the published specification.

In the Office Action, the Examiner requests a confirmation of the election. Applicants hereby confirm the election of Group I, including claims 21-31, which have been cancelled and replaced with new claims 43-57.

At page 3 of the Office Action, the Examiner has objected to the disclosure and states that the reference or meanings ascribed to the listing of patent numbers bridging pages 2 and 3 of the Substitute Specification is not clear. Such listing has been removed from the specification. Accordingly, Applicants respectfully request that the objection to the specification be withdrawn.

Claim Rejections – 35 U.S.C. § 112

Claims 21-31 are rejected under 35 U.S.C. § 112, first paragraph, as not enabled. The Office Action states that the specification is enabling for a “vinyl cis polybutadiene rubber (blend) composition” but not for any type of polymer substance.

Without necessarily agreeing with the Examiner’s position, Applicants have replaced claim 21 with claim 43 to more specifically recite what the polymer substance is as disclosed in paragraphs [0077 – 0081] of the published application. Accordingly, Applicants respectfully request that the enablement rejection be withdrawn.

Claims 21-31 are rejected under 35 U.S.C. § 112, second paragraph, as indefinite. The Examiner alleges that the language of “physically, chemically or physicochemically adsorbed states” in claim 21 is vague and confusing. Appropriate correction has been made to claim 43 (the replacement for claim 21) based upon the disclosure of paragraph [0088] of the published application.

Also, the Examiner alleges that in claim 31, it is unclear whether the fiber is contained in the polymer substance or not. Claim 31 has been replaced by claims 52 and 57 to avoid ambiguity. Applicants believe that claims 52 and 57 are definite.

Claims 25 and 28 are rejected under 35 U.S.C. § 112, second paragraph, as indefinite. The Examiner seems to allege that viscosity numbers without units make the claims unclear and that in claim 28 there is no recitation of measurement conditions for determining the “Mooney viscosity.” Claims 25 and 28 have been replaced with claims 47 and 50, respectively. Claim 47 now recites the units of centipoise and claim 50 now recites JIS K6300, as disclosed in paragraphs [0056], [0139], and [0140] of the published application. It is Applicants’ position that claims 25 and 28 are now definite.

In view of the above, Applicants respectfully request that the indefiniteness rejections be withdrawn.

Double Patenting Rejection

Claims 21-31 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as obvious over claims 1-14 of copending Application No. 10/596,755 (US 2007/0155889). Since the obviousness double-patenting rejection is only provisional, Applicants will address it in due course.

Claim Rejections – 35 U.S.C. § 103

Claims 21-30 are rejected under U.S.C. § 103(a) as unpatentable (obvious) over Kawaguchi (JP 05-194658). The Examiner alleges that all the features of claims 21-30 are obvious over Kawaguchi and states that it is applicants' burden to show that properties or functions of the claimed invention are different from the cited art.

The rejection of claims 21-30 is respectfully but strenuously traversed for the reasons set for below. Claims 21-30 have been replaced. The claims being examined are now claims 43-52 and 55-57, claim 43 being the independent claim from which all the other claims depend. The present arguments will focus on the claims now pending.

Claim 43 recites, *inter alia*, a vinyl-cis-polybutadiene rubber comprising (1) cis-polybutadiene rubber, (2) 1,2-polybutadiene, and (3) a polymer substance having a melting point lower than that of the 1,2-polybutadiene and having at least one unsaturated double bond per repeating unit. Further details of (3) are also recited in claim 43.

A characteristic feature of the presently claimed invention is that unsaturated polymers, such as polyisoprene (IR), are used to further improve the dispersibility of the 1,2-polybutadiene, as shown in Tables 2 and 3. Component (3) above is what helps the dispersibility of component (2) above in component (1) above as the matrix of the vinyl-cis-polybutadiene rubber. Comparative Examples 1 and 3-5 in Tables 2 and 3 do not use unsaturated polymers as in the claimed invention and those Comparative Examples correspond to Kawaguchi. A comparison of Example 1 and Comparative Example 1 in Table 1 shows that in Example 1 the mono-dispersed SPB fiber crystal fiber number per unit area is not less than 100, while in Comparative Example 1 it is 4. This is a significant difference that demonstrates the advantages of the presently claimed invention. Such increase in dispersibility results in the improvement of various physical properties such as hardness, flex-crack-growth, and rebound resilience. There is no disclosure or suggestion in the cited art that the dispersibility of 1,2-polybutadiene is improved with the use of the claimed unsaturated polymer.

Furthermore, although the Examiner alleges on page 7 of the Office Action that Kawaguchi discloses a cis butadiene rubber to which may be compounded 1,2-polybutadiene and other “polymer substances,” the more specific recitation for the “polymer substances” further distinguishes from the cited art. Moreover, the Examiner has not specifically pointed out where in Kawaguchi each of components (1), (2), and (3) is disclosed, especially taking into account that component (3) has a melting point which is lower than component (2), has a double bond per repeating unit, and has been further specified in claim 43. Accordingly, claim 43 is patentable over Kawaguchi at least for this reason, and notice to this effect is respectfully requested.

Claims 44-52 and 55-57 depend from claim 43 and are patentable at least for the reason that they depend from a patentable base claim. Furthermore, claims 45, 46, 49, 55, and 56 further recite particular ratios of components or further recite what the components can be and are also distinguishable over Kawaguchi for this reason. The Examiner has not identified where in Kawaguchi the features of claims 45, 46, 49, 55, and 56 are disclosed.

Applicants note that claims 53 and 54 depend from claim 43 and respectfully request that they be rejoined. Additionally, the withdrawn claims are directed to a method of making the elected product, and Applicants respectfully request rejoinder of the withdrawn claims.

The Examiner did not consider some of the references submitted to the USPTO in the Information Disclosure Statements of May 31, 2007 and June 6, 2006. The reference submitted with the IDS of May 31, 2007 (JP 2005-206702) was resubmitted with an IDS on January 7, 2009. The IDS of June 6, 2006 stated that the references were from a Japanese International Search Report and/or the Background section of the application. The references which were not considered in the IDS of June 6, 2006 are the ones disclosed in the specification with respective concise statements. Applicants respectfully direct the Examiner to, for example, paragraphs [0005] – [0007] of the published patent application in this regard. Accordingly, the submission of the documents was appropriate, and Applicants respectfully request that the Examiner consider the documents and provide notice thereof.

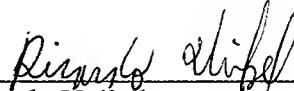
CONCLUSION

In view of the foregoing Amendment and Remarks, Applicants respectfully submit that the specification and claims are in proper form. Additionally, the claims distinguish over the cited art and therefore the present application is in condition for allowance. Reconsideration and an early Notice of Allowance are respectfully requested.

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Respectfully submitted,

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